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Can Training in Medical School "Grow" Physicians that Shape Health Policy?

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Abstract

Background: Health policy and advocacy efforts are the foundation for improving community health outcomes. Active physician participation directly correlates with better proposed and implemented policy measures.

Objectives: Our goal is to examine interest, importance, and level of participation in health policy and advocacy amongst University of New Mexico graduate medical trainees. Our research question was, "Does exposure to health policy training during medical school lead to positive policy and/or advocacy interest, knowledge, and/or intention to participate after graduation?"

Methods: We administered a cross-sectional survey to post-medical school trainees and analyzed results by training experiences and post-graduate training level.

Results: Residents who received policy training in medical school ranked physician participation in policy as more important than those who did not get such training and were more likely to vote in elections compared to age group national rates. The number of health policy and advocacy activities engaged during residency increased if they received advocacy training, yet residents do not feel empowered to engage in policy work at the organizational level. Residents plan to be involved in policy work post-graduation, yet less than half follow policies at a national level, and only slightly more than half follow state policy.

Conclusions: To our knowledge, this is the first paper that describes what resident physicians do (or intend to do) with health policy and advocacy training received in medical school. Our findings offer insight into policy interest and actions taken following medical school graduation.

INTRODUCTION

Physician participation in policy development leads to better policy proposals and implementation (Stull, Brockman, and Wiley 2011), yet medical students often lack proper training in health policy fundamentals (Patel et al. 2014; Emil et al. 2014; Chuang 2011). This is due partially to the need for medical school curricula to focus on clinical health knowledge, leaving little time for policy education (Gupta 2006). Introducing policy and advocacy early in medical education may influence doctors to pursue health policy efforts later in their careers (Gupta 2006; Huntoon et al. 2012; Law et al. 2016; Marsh et al. 2019; Shankar et al. 2022). This study is a follow-up to *Family Medicine* Journal reviewers' comments on "Students of Change: Health Policy in Action." (Clithero-Eridon et al. 2022) Reviewers asked what difference policy and advocacy training have on the future interest and engagement of physicians. Our research question was, "Does exposure to health policy training during medical school lead to policy and/or advocacy interest and practice after graduation?"

METHODS

We administered a cross-sectional survey to MDs in post-graduate training (Residents: R1, R2, R3. Fellows: R4 and above) at the University of New Mexico School of Medicine (UNM SOM), located in Albuquerque, New Mexico, to assess policy interest and practice among residents. (See Appendix 1 for the survey).

The University of New Mexico Human Research and Review Committee approved this study.

Data Collection

We created an online multiple-choice survey and distributed it to 708 residents and fellows in September 2021 using a UNM Office of Graduate Medical Education listserv. Survey data were collected and stored in RedCap (Harris et al. 2009).

Indicators

Our primary outcomes are health policy and advocacy participation and interest.

Data Analysis

We compiled frequencies and percentages for categorical variables and means and standard deviations for continuous/ordinal variables. Comparisons between categorical variables were made using Fisher's exact tests and Pearson's chi-squared tests when sample sizes were appropriate. Spearman's correlations (*rs*) were used to evaluate correlation among continuous/ordinal variables.

RESULTS

We received complete responses from 50 participants (7% response rate). See Table 1 for Demographic Information and the type of health policy education received. Almost three-fourths of respondents received health policy training during medical school.

Table 1: Demographic Information and Health Policy Training Received

Demographics				
Indicator	**N, 50**	**%**		
Medical School				
UNM SOM Graduate	9	18%		
Non-UNM SOM Graduate	41	82%		
Year of Medical School Graduation				
Recent (2017 – 2021)	41	82%		
Not Recent (2007 – 2016)	9	18%		
Specialty				
Primary Care	29	58%		
Non-Primary Care	21	42%		
Residency Year				
Residents	36	72%		
Fellows	14	28%		
Received Health Policy or Advocacy Training During Medical School	**Yes N, 37**	**No or Unsure N, 13**		
	74%	26%		
Hours of Training Received				
10 hours or less of training	31	62%		
More than 10 hours of training	18	36%		
Method of Training	**Yes**		**No**	
	N	**%**	**N**	**%**
Didactics	43	86%	7	14%
Case-based learning	19	38%	31	62%
Experiential Learning	19	38%	31	62%
Worked with communities to advocate on an issue	14	28%	37	72%
Visited state legislature	12	24%	38	76%
Drafted a health policy	7	14%	43	86%
Other*	4	8%	46	92%
Number of Learning Experiences				
Experiences	N	%		
None	5	10%		
One	15	10%		
Two or more	30	30%		

Didactic Training Only	15	30%		
Active Training with no didactics	2	4%		
Combination of didactic and active training	28	56%		

*"Other" activities were not clarified by any of the respondents.

Resident action and engagement in health policy

The number of activities selected was higher for those receiving advocacy training (mean=3.8) compared to those who did not (mean=2.1, p=0.03). Table 2 summarizes residency health policy and advocacy activities. Neither policy training nor health advocacy training was associated with engagement in individual activities (p>.15 and p>.15 for all, respectively). However, the number of activities engaged in was larger for those with health advocacy training (mean=3.8, sd=2.4) compared to those without (mean=2.1, sd=2.1 p=0.03).

Table 2: Residency Health Policy and Advocacy Activities (N=50)

	Number of Activities Engaged in While in Residency 1-4 activities (N28, 56%) 5 or more (N14, 28%)			
	Received Policy Training			
	Yes		**No**	
Policy Activity	**N**	**%**	**N**	**%**
Voting in a local election	32	64%	18	36%
Voting in a state election	33	66%	17	34%
Voting in a national election	35	70%	15	30%
Testifying at a legislative committee hearing	3	6.0%	47	94%
Testifying at a city council meeting	0	0%	50	100%
Participated in health policy discussions within my organization	15	30%	35	70%
Participated in research evaluation of health policy (assessment, implementation, or outcome	6	12%	44	88%

stages)				
Participated in health policy related protest demonstrations (sit-ins, or marches)	11	22%	39	78%
Joined city or state professional society	20	40%	30	60%
Reviewed a policy for health implications for a decision maker	2	4.0%	48	96%
Drafted a policy with health implications at any level (school, organization, city, state)	3	6.0%	47	94%
Writing to a local newspaper to express an opinion	6	12%	44	88%
Other (Included speaking at a rally, community canvassing, summarizing points of interest to decision makers on a policy proposal)	3	6%	47	94%

*"Other" activities were not clarified by any of the respondents.

Respondents receiving policy training in medical school ranked physician participation in health policy as more important than those who did not get such training and were more likely to vote in local, regional, and national elections compared to age group national rates (Bureau n.d.).

Respondents in a primary care specialty were less likely to vote in national elections compared to other specialties ($p=0.04$). Fellows were more likely than residents to vote in national elections ($p<0.01$). Respondents in a primary care specialty were likelier to write to a local newspaper ($p=0.03$). Respondents agreed physicians should be engaged in policy and advocacy work (Table 3).

Table 3: Resident beliefs regarding physician involvement in health policy and advocacy work and characterization of resident interest by the extent they followed health policies

Statements	**Positive Agreement**		**Negative or Neutral Agreement**	
	N	**%**	**N**	**%**
Physicians should be engaged in health policy work	43	86%	7	14%
Physicians should act as an advocate for health policy	45	90%	5	10%
I feel empowered in my current position to be engaged in health policy work	13	26%	37	74%

I plan to be involved in health policy work once I complete my training	30	60%	20	40%
As a resident, I follow policies in my state legislature	18	36%	32	64%
As a resident, I follow policies being considered by the U.S. Congress	23	46%	27	54%

Those who received health advocacy training in medical school were more likely to follow policies in Congress (p=0.02). Eighty-two (82) percent of respondents (N=41) rated their interest in policy initiatives as a medium, high, or essential priority. Interest in policy initiatives was significantly higher among those following state (*rs*=0.43, p<0.01) and national health policies (*rs*=0.35, p=0.01), those agreeing physicians should be engaged in health policy work (*rs*=0.50, p<0.01), and respondents planning to be involved in policy work (*rs*=0.54, p<0.01). Plans for future policy work were positively associated with the extent to which they follow state (rs=0.46, p<0.01) and national policies (*rs*=0.49, p<0.01) and with the agreement that physicians should be engaged in (*rs*=0.59, p<0.01) and advocate for health policies (*rs*=0.67, p<0.01). Self-reported empowerment to engage in health policy work was correlated with the extent to which they followed state policies (rs=0.41, p<0.01).

DISCUSSION

To our knowledge, this is the first paper that describes what resident physicians do (or intend to do) with health policy and advocacy training received in medical school. According to experiential theory, learning occurs by doing, yet in our study, less than one-half (N=19, 38%) of respondents received training through experience (Yardley, Teunissen, and Dornan 2012). One study found that medical students were more likely to meet in person and discuss healthcare issues with their local legislators after just one day of legislative advocacy training (Huntoon et al. 2012).

Over half of respondents engaged in health policy and advocacy activities while in residency. The number of activities selected was higher if they received prior training. However, our residents do not feel empowered to engage in policy work at the organizational level, which seems like an accessible avenue to learn further how to make changes at a systems level. Our findings are consistent with studies that have found policy and advocacy work is valued and important (Huntoon et al. 2012; Garg et al. 2019). A significant number of respondents rated their interest in health policy work as high and their own plans to be involved in policy work post-graduation, yet less than half follow policies at a national level; even fewer follow state policy. This is concerning as interest in health policy initiatives was positively correlated with the extent to which participants follow state and national health policies. Similar studies indicate a disconnect between the known importance of advocacy and overall action (Garg et al. 2019).

Limitations: Limitations include a low response rate and limiting generalizability among our resident population and other settings. Respondents interested in health policy and advocacy may have been more likely to respond to the survey. Residents may be more likely to vote than

national peers due to their high level of education. Finally, residents relied on their memory for previous education, which may be inaccurate.

CONCLUSION

Our findings offer insight into policy interest in and actions taken following education. Physicians inherit the results of policy decisions, so it is critical that experiential training occur as early as possible in their education. Future research needs to explore additional ways to support physician engagement in health policy and advocacy. Methods might include time away from clinical responsibilities to engage in advocacy work or additional time within the curriculum for structured advocacy work.

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Appendix 1: Survey

At the beginning of the survey, we defined health policy as *"Health policy defines health goals at the international, national, or local level and specifies the decisions, plans, and actions to be undertaken to achieve these goals."*("Health Systems Governance" n.d.) We defined health advocacy as *"Activities related to ensuring access to care, navigating the system, mobilizing resources, addressing health inequities, influencing health policy, and creating system change*."(Hubinette et al. 2017) We defined primary care as internal medicine, family medicine, pediatrics, OB/GYN, and emergency medicine to capture settings where primary care may be obtained.

Question #	Question	Response Selection
1	What medical school did you attend?	Open response
2	What year did you graduate medical school?	Range of 2005 - 2021 and "other" if prior to 2005
3	What is your specialty?	Primary Care Non-primary care
4	If primary care, then	Pediatrics, internal medicine, family medicine, emergency medicine, OB/GYN
5	If not primary care, then	Allergy/immunology Anesthesiology Critical Care Dermatology ENT Gastroenterology General Surgery Hematology/Oncology Neurology Ophthalmology Pathology Preventive Medicine Psychiatry Radiology Surgical Specialty (Burn, Neurosurgery, Pediatric specialty, Plastics, Vascular) Urology
6	What resident year are you currently in?	R1 R2

		R3 R4 or above
7	Did you receive any health policy training in medical school?	Yes No Not Sure
8	Did you receive any health advocacy training in medical school?	Yes No Not Sure
9	Which methods were used to deliver the training? Check all that apply If experiential then	Didactics Visit to state legislature Case-based learning Experiential learning Writing a health policy Working with a community to advocate on an issue Other _____
10	How many hours of health policy training did you receive while in medical school? Select the one that best applies	0-5 hours 5-10 hours 10-15 hours 15 - 20 hours 20-25 hours 25 hours or more
11	Since medical school graduation, have you participated or been involved in any way with the following type of activities? Check as many as applicable	Voting in a local election Voting in a state election Voting in a national election Testifying at a legislative committee hearing Participated in health policy discussions within my organization Participated in research evaluation of health policy (at the assessment, implementation, or outcome stages) Participated in health policy related protest demonstrations, (e.g., sit-ins or marches) Joined my city or state professional society (ex: NM Medical Society or Greater Albuquerque Medical Association) Reviewing a health policy for health

	If other, please describe	implications for a decision maker Drafting a policy with health implications (level of school, organization, city, state, etc.) Writing to a local newspaper to express your opinion Other
12	During your residency have you received any health policy training? If yes, is the residency training more, less, or the same amount as what you received in medical school?	Yes No Unsure More Less Same Amount
13*	To what extent do you follow current health policies being considered in your state legislature?	1 = Never 2 = Rarely, in less than 10% of the chances when I could have 3 = Occasionally, in about 30% of the chances when I could have 4 = Sometimes, in about 50% of the chances when I could have 5 = Frequently, in about 70% of the chances when I could have 6 = Usually, in about 90% of the chances I could have 7 = Every time
14*	To what extent do you follow current health policies being considered in the U.S. Congress?	1 = Never 2 = Rarely, in less than 10% of the chances when I could have 3 = Occasionally, in about 30% of the chances when I could have 4 = Sometimes, in about 50% of the chances when I could have 5 = Frequently, in about 70% of the chances

		when I could have 6 = Usually, in about 90% of the chances I could have 7 = Every time
15	Are you an active member of your state medical society or state professional society?	Yes No
16**	Overall, how would you describe your interest in health policy initiatives?	1 = Not a priority 2 = Low priority 3 = Medicum priority 4 = High priority 5 = Essential
17***	To what extent do you agree with the following statements? Physicians should be engaged in health policy work Physicians should act as an advocate for health policy I feel empowered in my current position to be engaged in health policy work I plan to be involved in health policy work once I complete my training	1 = Strongly disagree 2 = Disagree 3 = Neither agree or disagree 4 = Agree 5 = Strongly Agree

*For questions #13 and #14, we combined the never, rarely, and occasionally responses together as they comprise less than half of the "chances" and the sometimes, frequently, and usually responses to characterize those that participated in more than one-half of the opportunities when presented.

**We combined responses of a 1 or 2 to better gauge interest in policy

***We combined negative and neutral scores to characterize agree and disagree scores.

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